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Ross D. Davies  
State Coordinator

L. R. Kennedy  
Extension Soil Conservationist

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Dear Cooperator:

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Since our last news letter in April much has happened which effects the long time conservation program and which we will endeavor to describe in this issue.

The Soil Conservation Districts Law became effective July 1 and with it the organization of the State Soil Conservation Committee which supervises the organization of districts and assist them in carrying out their program.

The first soil conservation district is in process of organization at Faith South Dakota. Local people have carefully analyzed the districts law and are making much progress in applying its provisions to local problems.

Ten tours of the Huron and Winner projects and the Alcester and Sturgis camps were held during June at which nearly 500 farmers from outlying counties studied the results of conservation practices.

A cooperative vegetative and range management survey is under way in six

southwest counties. The Soil Conservation Service is cooperating with the Bureau of Indian Affairs in making the survey.

Demonstration farms in seventeen counties outside of regular Soil Conservation Service project and camp areas have been established by the Extension Service cooperating with the Soil Conservation Service. This work is in addition to the demonstrations carried by farmers under agreement with the Soil Conservation Service in project and camp areas at Huron, Winner, Sturgis, and Alcester. On such projects a total of 438 farms are carrying complete erosion control and moisture saving programs on a five year cooperative plan.

Reports from over the state indicate that the harvest is much better than for several years. An abundant feed crop in most sections is assured, and sufficient vegetative cover is established which, if properly managed, will aid materially in preventing soil erosion.

## STATE SOIL CONSERVATION COMMITTEE ORGANIZES

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According to provisions set forth under the Soil Conservation Districts law enacted by the state legislature this year, the State Soil Conservation Committee was organized recently at Pierre.

Heading the new committee as chairman will be Mr. A. M. Eberle, Director of Extension. Ben Stroll, commissioner of School and Public Lands is vice-chairman, and Ross D. Davies, State Coordinator, will act in an advisory capacity by appointment from Secretary of Agriculture Henry A. Wallace. Other members are I. B. Johnson, vice-director of the state experiment station, and William R. Hoese, director of Rural Credits for the State of South Dakota.

Main purposes of the new committee are to hold public hearings on proposed soil conservation districts, determine if there is a need or no need for proposed districts. The committee establishes boundaries, conducts referendums among landowners, form districts and assist in getting the districts properly organized.

The committee will also assist the districts in obtaining cooperation from state and federal agencies in the establishment of Soil Conservation areas. Duties of the new committee as outlined in the Soil Conservation Districts Law are as follows:

1. To offer such assistance as may be appropriate to the supervisors of Soil Conservation districts, organized as provided in the state law, in the carrying out of any of their powers and programs.

2. To keep supervisors of each of the several districts organized under the provisions of the act informed of the activities and experience of all other districts organized, and to facilitate an

interchange of advice and experience between such districts and cooperation with them.

3. To coordinate the programs of the several soil conservation districts so far as this may be done by advice and consultation.

4. To secure the cooperation and assistance of the United States and any of its agencies, and of agencies of this state, in the work of such districts.

5. To disseminate information throughout the state concerning the activities and programs of the Soil Conservation districts and to encourage the formation of such districts in areas where their organization is desirable.

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#### HEARINGS ON FIRST DISTRICTS ARE HELD

On July 15, the State Soil Conservation Committee held public hearings at Dupree and Faith on the question of organization of a soil conservation district comprising 921,600 acres of land in 40 townships in Meade, Ziebach, and Perkins Counties. Ranchers, farmers, and other interested parties from all three counties attended the hearings and presented evidence on the need for organization of a district.

Among those submitting evidence was the landowner committee of six farmers two from each county who have been working on creation of a district since last April. Meetings of the committee have been held every two weeks to analyze problems and to develop a long time program for the area involved. Members of the committee are C. E. Jonas, chairman, and Stokely Tibbles, Meade County; Ed. Hall and Frank Gottschalk of Perkins, and Joe Heimer and Frank Eichleman of Ziebach County. Ellsworth Winkle, Assistant Meade County Agent is secretary.

The local committee has determined



that one of their main problems is water conservation as well as soil conservation in view of the fact that it is a semi-arid region from which vegetation has been removed by overgrazing, hoppers and drought. Other problems emphasized include: Wind erosion and overgrazing, lack of sufficient watering facilities for livestock, too many owners in comparison to the number of operators and the ability of the unit to sustain the operator, land use practices and cropping systems adapted to conditions, tax delinquency and the relationship of the tax loan to productivity of the land, and the need for outside assistance to handle problems.

The conservation organizers are seeking information, by surveys and otherwise, covering soil and climatic conditions, landownership, tax delinquency, wind and water erosion, the proper operator unit size and pattern and grazing capacity of the land. This information is sought through agencies such as the Soil Conservation Service, Extension Service, Resettlement Administration, Agricultural Economics Department, Experiment Station, Forest Service, State Rural Credit and School Lands Departments, Indian Service, Planning Boards, and Department of Interior.

Some of the solutions advanced in material prepared by the landowners committee, and which they hope to work out through district organization include: 'Contour farming, furrowing, dam building, strip cropping, etc.; grazing control; shelterbelt plantings, production and storage for forage crops for emergency purposes; use of proven varieties of grains adapted to the area; use of machinery best adapted to use in semiarid region; solicitation of assistance of a technical nature from governmental agencies; adjustment of the tax loan according to productivity of the land and a request for public improvements in line with the tax revenue; and realignment of operating units as to size and type of operation".

"This is a broad, long time program" but these forwarding looking farmers are conscious of the vital necessity of saving their soil, conserving their moisture and adjusting land use.

Based on evidence submitted at the hearings and other relevant information the state committee, at their meeting held on July 29, 1937, determined that in the interest of public health, safety and welfare, that need exists for the creation of the soil conservation district for which petition was submitted and referendum among owners of land within the district was authorized. The law requires that before organization of a district can be approved by the State Committee, there must be a favorable two-thirds majority vote in the referendum, and the total vote cast must represent two-thirds of the land area of the district.

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#### 4-H CLUB MEMBERS LEARN ABOUT EROSION

Some 3,000 4-H Club boys and girls this summer learned about soil erosion and some of the ways of combatting it.

L. R. Kennedy, extension soil conservationist, explained that at the request of the State Extension Service, the Soil Conservation Service cooperated with the State 4-H Club Department by supplying information to club members in the five summer camps at Swan Lake, Lennox, Watertown, Big Stone, and Pactola.

"The club members, throughout the entire camp period" he said, "were given an opportunity to learn what a contour line, for example, is and to absorb much other good information which they can take back and put into practice on their own club projects."

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SOUTH DAKOTA FARMERS  
ENJOY TOUR OF SEVERAL  
SOIL CONSERVATION AREAS

Tours of four Soil Conservation projects in South Dakota during the month of June gave some 500 farmers from 45 counties a 'birdseye' view of the various methods being used to conserve soil and water.

Soil Conservation Service officials, through the cooperation of the Extension Service and CCC camp officials, devoted ten days during June in conducting farmers over Soil Conservation areas at Alcester, Winner-Dixon, Sturgis, and Huron.

Strip cropping, basin listing to be summer fallowed, listing on the contour, strip cropping terraces, listing corn on the contour with buffer strips, stock watering dams, water spreader systems to salvage run-off water from roads, crop rotation, tree planting, brush dams for gully control, and contour pasture furrows were among the many soil and water conservation methods seen by the touring farmers.

Various soil and water conservation methods were observed on the following farms: Winner-Dixon area - George Bailey, B. F. Carper, Joe Frescoln, Henry Scissons, Ethel Kraft, A. H. Gundeson, Axel Johnson, Alex Stenson, Maurice Renot, John Brown, Charles Phillipson, C. F. Spreckels. Alcester camp area - John Numson, M. D. Hartlett, Robert Wennblom, Nick Doty, Frank Bryson, Big Nilson, L. D. Ericson. Huron project area - Leon LeClaire, John P. Ratliff, Jule Delvaux, C. W. Lemke, D. F. Maas, the Hartzell ranch, Ralph Mackey, Marie Karnstrum, L. E. Braun, Lena Jefferson, the Geister farm, Arthur Stegman, Anna Likeness, August Kahre, Carl Larson, Oscar Ringheimer, Ralph Osmanson, Anton Balvin. Sturgis camp area - W. R. Atkins, Albert and Leo Heffeler, Freeman Hansen and the C. K. Seggelke place.

The Ira Frasier place five miles north of Presho attracted considerable attention because of soil erosion control

and moisture conservation work being done on it in cooperation with the Soil Conservation Service and the CCC camp which was stationed there in 1936.

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COOPERATIVE RANGE SURVEY UNDERWAY  
IN TODD AND MELLETTTE COUNTIES

That division of the Soil Conservation Service known as Technical Cooperation with the Bureau of Indian Affairs is cooperating with other agencies in making a detailed inventory of range resources in Todd and Mellette Counties.

A staff of trained range examiners under the direction of P.B. Lister, Associate Range Examiner are at work assembling data which will be useful in planning a long time range conservation and land use program for the area involved and for use by the AAA in their range program.

Aerial photographs made covering the greater portion of the area are being used in preparing a series of three maps, showing such general features as roads, fences, streams, houses and towns, vegetative types and degrees of erosion. On the vegetative map timbered areas, tall grass, short grass, meadows, and other variations in the vegetative cover are shown. The erosion overlay areas show different degrees of wind and sheet erosion as well as those with no accelerated erosion. The vegetative overlay serves also for general land classification purposes inasmuch as it shows range land as distinguished from cultivated, idle and abandoned areas and timbered or forested portions.

On range lands an additional range management map is prepared, showing numbers of stock to be grazed between certain dates on the various livestock units, present and proposed improvements, location of salting grounds and other details pertaining to a well-rounded range management program.

In addition to the other data, a survey is made of the number of game animals, predators and range destroying rodents present, with recommendations for their control where necessary.



## SOIL CONSERVATION AND RESEARCH

By J. Cladden Hutton, Associate Agronomist,  
In Charge of Soil Investigation, South Dakota State College.

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During the recent visit of the training group of the Soil Conservation Service to the Agricultural Experiment Station of Brookings it was our privilege to discuss with these visitors the relation of research to the program of the Soil Conservation Service.

Those of us who have labored long in soils work in this part of the country know that there has been a steady deterioration of the soils of the state, beginning when the soils were first plowed and continuing without interruption to the present. We know that the increasing tendency of soils to blow and wash in South Dakota is closely correlated with the kind of management which the soils received while crops were being produced.

The support of the Soils Research program has never been commensurate with the importance of the work, but a few facts concerning soil depletion have been found out. For example: at the Brookings field careful chemical analyses have been made of soil samples which have been collected at regular intervals from the same fields since 1908. The last samples from which results are available were collected in 1929, and the analyses show that 29% of the organic matter disappeared from the soil in the preceding 21 years. Similar investigations in other parts of the state have given similar results.

There is great need for definite information concerning the many soil types which exist in South Dakota. The build-

ing of a successful soil conservation program depends upon an accurate information concerning the present tendency of the natural soil processes as well as upon accurate information concerning the effects which recommended practices are likely to have upon the soils. Soil conservation must be recognized as a long time program, and the continuance of such a program will depend upon its intelligent adaptation to known conditions.

The Agronomy Department is always ready to cooperate in any constructive program which will lead to the establishment of a permanent and profitable agriculture in the State. The experience of many years has taught us that one of the great hinderances to such a program is the lack of information concerning the character and distribution of the many important soil types. Not only is it difficult to apply the results obtained on certain soil types on the Experiment Station fields to many of the farms of the state where the soil types are unknown, but it is also difficult to carry on an educational program on the adaptation of recommended practices when it is not known whether a successful practice developed on one soil type may be profitably used on another.

The destiny of the soil conservation program; as well as the destiny of the state and the nation, depends upon facts which can be ascertained only by adequate soil surveys and carefully planned soil research.

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UNITED STATES  
DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
Ross D. Davies,  
State Coordinator  
Brookings, South Dakota  

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